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OUT53781

T O P S E C R E T 202331Z

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25X1

21 JUL 1964

HFS

Grace (File)

1. ENCLOSED ARE ROLL, PITCH, AND YAW VALUES FOR MISSION 4009 AFTER RUN-OUT.

2. ALTHOUGH INDEX FRAMES NUMBERED 183 THROUGH 189 WERE TOO DARK TO MEASURE, STELLAR IMAGERY OF A DIFFERENT STELLAR FIELD INDICATED AN OBVIOUS TIME CHANGE.

3. AN UNEXPLAINED BLANK FRAME APPEARED BETWEEN FRAMES 189 AND 190.

4. ON FRAMES 190 THROUGH 261, THE STELLAR FIELD WAS EVIDENT AND MEASURABLE, BUT CLOUDS PRECLUDED GROUND CORRELATION.

5. TWO STELLAR FRAMES FOLLOWED INDEX FRAME 261, ONE WITHOUT FIDUCIALS AND ONE WITH FIDUCIALS. THE STELLAR FIELD HAD ROTATED APPROXIMATELY 270 DEGREES.

6. STARTING WITH INDEX FRAME NUMBER 262, THE ORIGINAL STELLAR FIELD WAS APPARENT AND MEASUREMENTS WERE PERFORMED ON SUCCESSIVE FRAMES THROUGH 333, AT WHICH TIME THE ARBITRARY NUMBERS 601 THROUGH 673 WERE ASSIGNED TO THE UNNUMBERED FRAMES. MEASUREMENTS WERE MADE ON ALL FRAMES THROUGH 616 AT WHICH TIME IMAGERY FADED OUT.

25X1

Excluded from automatic downgrading and declassification

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7. FOLLOWING 673 WAS ONE UNMARKED STELLAR FRAME WITH FIDUCIALS BUT NO IMAGERY, FOLLOWED BY ORIGINAL FRAME NUMBERS 334 AND 335 BOTH HAVING DIFFERENT STELLAR FIELDS BUT NO FIDUCIALS. THE NEXT FRAME HAD FIDUCIALS BUT NO IMAGED STARS.

8. THE REMAINDER OF THE RUN WAS ORIGINALLY NUMBERED 336 THROUGH 401. THERE WAS A DISTINCTIVE STELLAR FIELD THAT WAS NOT IDENTIFIED.

INDEX FRAME NO.	ROLL DEG.	MIN.	PITCH DEG.	MIN.	YAW DEG	MIN.	EVALUATION
105	MINUS 20	39	MINUS 04	58	PLUS 20	07	
106	MINUS 21	01	MINUS 04	57	PLUS 20	02	
107	MINUS 21	23	MINUS 04	51	PLUS 19	39	
108	MINUS 21	44	MINUS 04	52	PLUS 19	14	
109	MINUS 21	54	MINUS 03	19	PLUS 19	30	
110	MINUS 22	26	MINUS 04	51	PLUS 18	22	
112	MINUS 24	07	MINUS 04	29	PLUS 16	06	
113	MINUS 24	25	MINUS 04	21	PLUS 15	42	
115	MINUS 24	59	MINUS 04	14	PLUS 14	46	
116	MINUS 25	16	MINUS 04	09	PLUS 14	17	
118	MINUS 25	49	MINUS 03	59	PLUS 13	48	
119	MINUS 26	48	MINUS 03	24	PLUS 11	25	
120	MINUS 27	01	MINUS 03	19	PLUS 10	53	
262	MINUS 30	22	PLUS 01	32	PLUS 16	24	
263	MINUS 30	37	PLUS 01	33	PLUS 15	51	
264	MINUS 30	51	PLUS 01	47	PLUS 15	22	2 STARS

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265	MINUS	31	05	PLUS	01	57	PLUS	14 55
266	MINUS	31	19	PLUS	02	12	PLUS	14 24
267	MINUS	31	29	PLUS	02	23	PLUS	13 55
268	MINUS	31	44	PLUS	02	28	PLUS	13 21
269	MINUS	31	56	PLUS	02	39	PLUS	12 48
270	MINUS	32	32	PLUS	03	31	PLUS	10 37
271	MINUS	32	46	PLUS	03	31	PLUS	09 52
272	MINUS	32	51	PLUS	03	45	PLUS	09 22
273	MINUS	32	59	PLUS	03	49	PLUS	08 44
274	MINUS	33	05	PLUS	04	02	PLUS	08 15
275	MINUS	33	10	PLUS	04	10	PLUS	07 42
276	MINUS	33	15	PLUS	04	22	PLUS	07 12
277	MINUS	33	21	PLUS	04	33	PLUS	06 37
278	MINUS	33	33	PLUS	05	44	PLUS	04 09
279	MINUS	33	32	PLUS	05	54	PLUS	03 28
280	MINUS	33	30	PLUS	06	10	PLUS	02 51
281	MINUS	33	28	PLUS	06	21	PLUS	02 09
282	MINUS	33	25	PLUS	06	33	PLUS	01 30
283	MINUS	33	22	PLUS	06	52	PLUS	00 52
284	MINUS	33	20	PLUS	07	09	PLUS	00 10
285	MINUS	33	18	PLUS	07	28	MINUS	00 30
286	MINUS	33	20	PLUS	08	59	MINUS	03 39
287	MINUS	33	24	PLUS	09	21	MINUS	04 29
288	MINUS	33	32	PLUS	09	35	MINUS	05 25
289	MINUS	33	51	PLUS	09	46	MINUS	06 00
290	MINUS	34	14	PLUS	09	54	MINUS	06 33

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291	MINUS	34	14	PLUS	10	05	MINUS	07	07
292	MINUS	33	59	PLUS	10	14	MINUS	07	44
293	MINUS	33	44	PLUS	10	27	MINUS	08	18
294	MINUS	32	35	PLUS	11	16	MINUS	10	38
295	MINUS	32	14	PLUS	11	12	MINUS	11	21
296	MINUS	31	57	PLUS	11	24	MINUS	11	52
297	MINUS	31	36	PLUS	11	30	MINUS	12	30
298	MINUS	31	16	PLUS	11	33	MINUS	13	05
299	MINUS	30	55	PLUS	11	35	MINUS	13	43
300	MINUS	30	32	PLUS	11	42	MINUS	14	16
301	MINUS	30	11	PLUS	11	46	MINUS	14	50
302	MINUS	28	32	PLUS	12	08	MINUS	17	11
303	MINUS	28	07	PLUS	12	04	MINUS	17	43
304	MINUS	27	45	PLUS	12	15	MINUS	18	06
305	MINUS	27	14	PLUS	11	55	MINUS	18	54
306	MINUS	26	47	PLUS	11	53	MINUS	19	29
307	MINUS	26	20	PLUS	11	53	MINUS	20	04
308	MINUS	25	51	PLUS	11	51	MINUS	20	42
309	MINUS	25	25	PLUS	11	49	MINUS	21	13
310	MINUS	23	24	PLUS	11	36	MINUS	23	17
311	MINUS	22	54	PLUS	11	32	MINUS	23	47
312	MINUS	22	24	PLUS	12	03	MINUS	24	06
313	MINUS	21	47	PLUS	11	02	MINUS	25	01
314	MINUS	21	21	PLUS	11	02	MINUS	25	28
315	MINUS	20	50	PLUS	10	57	MINUS	25	54

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316	MINUS	20	19	PLUS	10	55	MINUS 26	17
317	MINUS	19	48	PLUS	10	48	MINUS 26	43
318	MINUS	17	33	PLUS	10	39	MINUS 28	27
319	MINUS	17	01	PLUS	10	37	MINUS 28	47
320	MINUS	16	28	PLUS	10	27	MINUS 29	09
321	MINUS	15	56	PLUS	10	19	MINUS 29	30
322	MINUS	15	22	PLUS	10	13	MINUS 29	49
323	MINUS	14	48	PLUS	10	12	MINUS 30	07
324	MINUS	14	16	PLUS	10	02	MINUS 30	28
325	MINUS	13	44	PLUS	10	00	MINUS 30	46
326	MINUS	11	17	PLUS	09	57	MINUS 31	57
327	MINUS	10	45	PLUS	09	54	MINUS 32	14
328	MINUS	10	12	PLUS	09	47	MINUS 32	32
329	MINUS	09	36	PLUS	09	46	MINUS 32	48
330	MINUS	09	02	PLUS	09	43	MINUS 33	00
331	MINUS	08	27	PLUS	09	35	MINUS 33	11
332	MINUS	07	52	PLUS	09	37	MINUS 33	20
333	MINUS	07	18	PLUS	09	31	MINUS 33	30
601	MINUS	04	36	MINUS	00	21	MINUS 34	30
602	MINUS	04	01	MINUS	00	33	MINUS 34	32
603	MINUS	03	27	MINUS	00	50	MINUS 34	34
604	MINUS	02	48	MINUS	01	18	MINUS 34	32
605	MINUS	02	21	MINUS	01	15	MINUS 34	35
606	MINUS	01	49	MINUS	01	20	MINUS 34	34
607	MINUS	01	18	MINUS	01	35	MINUS 34	33 2 STARS

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608	MINUS	00	47	MINUS	01	44	MINUS 34	31	
609	PLUS	01	30	MINUS	03	47	MINUS 34	16	
610	PLUS	02	03	MINUS	03	04	MINUS 34	11	
611	PLUS	02	38	MINUS	02	29	MINUS 34	04	2 STARS
612	PLUS	03	12	MINUS	02	34	MINUS 33	57	2 STARS
613	PLUS	03	44	MINUS	02	44	MINUS 33	49	2 STARS
614	PLUS	04	07	MINUS	02	18	MINUS 33	42	2 STARS
									POOR GEOMETRY
615	PLUS	04	49	MINUS	03	17	MINUS 33	31	
616	PLUS	05	23	MINUS	03	22	MINUS 33	22	

T O P S E C R E T

-END OF MESSAGE-

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